

## Criteria for Developing a Constructed Response Investigation

### Criteria:

- \*\*Standards-based (GEs, Vermont Framework, NSES, Benchmarks, Atlas)
- \*\*Inquiry and Investigation approach
- \*\*No equipment is needed.
- \*\*Secondary Data Analysis
  - \*Text Criticism
    - Students provide:
      - Analysis of the validity of scientific claims from a reading;
      - Suggestions for experimental design to support or refute claims stated in a reading/article.
  - \*Flawed Experiment
    - Students provide:
      - Critical analysis of the design of a flawed experiment.
  - \*Data Interpretation
    - Students provide:
      - Scientific explanations elicited from narrative or graphic experimental data;
      - Creation of graph, chart or table from experimental data, followed by analysis and conclusion.
- \*\*Conceptual Analysis
  - Students provide:
    - Explanations of broad scientific concepts, used to explain scientific processes or phenomena.
- \*\*Construction of Questions of Models
  - \*Experimental Design
    - Students provide:
      - Scientific materials and itemized procedures, developed in response to a proscribed problem statement.